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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,143	11/21/2003	Colin G. Caro	30675/39743A	2219
4743	7590	12/11/2006	EXAMINER	
MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			BHAT, NINA	
			ART UNIT	PAPER NUMBER
			1764	

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/719,143	Applicant(s) CARO ET AL.	
	Examiner N. Bhat	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments have been fully and carefully considered. The examiner acknowledges that 10/478,115 has been abandoned and accordingly, the provisional statutory double patenting rejection is withdrawn as being rendered moot. The rejection remains as set forth in Paper Number 4-7-2006 and the following.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 remain as being rejected under 35 U.S.C. 102(b) as being anticipated by Gustav GB 636324 for reasons delineated the office action of April 7, 2006 and the following:

Gustav as applicant points out teaches a helical or spiral conduit (21) which moves fluid from one element of an apparatus to another element of an apparatus. The spiral or helical configuration directly reads on a pipe having a three dimensional curve. In US practice when drafting claims there is no difference whether the three-dimension conduit delivery is from one element of an apparatus to another element of the apparatus or whether the transfer is between processing units in a plant. It is maintained that when the claims are given its broadest most reasonable interpretation,

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the helical conduit or pipe reads directly applicant's claims as the processing units of a plant is given no weight and is treated no differently in interpretation where this is an explicit teaching of a spiral or helical pipe in fluid connection with other two other elements of the apparatus. With respect to applicant's discussion that there is no suggestion that the three-dimensional curve affects flow characteristics, this is not a persuasive argument first because this feature or characteristic has not been claimed and secondly, the claims were rejected as being anticipated by the reference and the "suggestion" argument is not proper for anticipation only obviousness type rejections.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Groth et al. USP 5,594,077.

Groth et al. teach a process and apparatus for preparing polymers. Specifically claimed is a three-dimensional curved pipe, which is in fluid connection with the jet mixer, is in series to a multi-phase reactor, which fully anticipates applicant's claims as drafted. [Note the claims and Figure 2]

5. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hetzel.

Hetzel teach a spiral tube which is fluid connection with element 8, which is in fluid connection with element inlet 5. Outlet 9 is in fluid connection with the spiral tube and fully anticipates applicant's claims of pipe work comprising at least one section with a centerline curving in three dimensions.

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Saito et al.

Saito et al. teach providing a spiral mixing which is a rigid pipe having at least one pipe work comprising at least one section with a centerline curving in three dimensions which is fluid connection with a plurality of processing units as shown in Figure 1 wherein a urine collection bowel is connected via conduit (6) to a concentration measuring device (8), which is connected to a diluting means (3) which is connected to a gas injector (4) which is fluidly connected to reagents. Conduit 6 is shaped into a spiral to promote mixing of the urine and the reagents by forcing them through the spiral conduit. [Note Column 4, line 63 to Column 5, lines 40] Saito et al. fully anticipates applicant's claims as drafted.

7. Claims 1-5 are rejected as being anticipated rejected under 35 U.S.C. 102(e) as being clearly anticipated by Sun et al.

Sun et al. teaches an air-liquid separating apparatus which includes a spiral pipe work configuration which includes at least one section with a centerline curving in three dimensions (122) which is fluid connection with air cooling tank 11 and air-separating tank 2 which reads directly on a plurality of processing units as claimed by applicant.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ruckstuhl teaches water distillation apparatus, which includes spiral or helical pipe, work in fluid connection with other processing units. Park et al. teach using a spiral pipe for treating waste gases.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


N. Bhat
Primary Examiner
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